

REMARKS

Claims 1-2, 6-8, 11, 13-15, 17, 19, 22, 24-30 and 32-37 are pending in the present application. Claims 22, 24-30 and 33-37 stand allowed.

In the Office Action, claims 1, 6, 11 and 13 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by Finn (U. S. Patent No. 6,648,074). Claims 1 and 13 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Finn. Claims 2 and 8 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Finn in view of Munk '182 (U.S. Patent No. 6,746,182). Claim 7 was rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Finn in view of Munk '182 and further in view of Davies (U.S. Patent No. 5,873,677). Claims 14, 15 and 17-19 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Davies in view of Grable (U.S. Patent No. 4,071,085) Applicants respectfully request reconsideration of these rejections.

Applicants respectfully submit that the Examiner's reading of Finn is simply incorrect. In Finn, the sleeve 100 is positioned around the shaft 86. The riser and shaft 86 may **ROTATE** relative to the sleeve 100. Col. 11, ll. 2-6. The shaft 86 is "made up of a pair of tapered pipe sections 90 having flanges 92 on one end" that are joined together end-to-end. Col. 10, ll. 39-42. The "ball wear insert 94 is attached to the outer circumferential surface of flanges 92." Col. 10, ll. 44-45. "The mating sleeve surface 104 is concave for conforming to the ball wear insert 94 shape" – which is convex. Col. 11, ll. 7-10 (emphasis added). The purpose of the sleeve 100 is to "resist contact load between shaft 86 and guide 82." Col. 11, ll. 9-10. The sleeve 100 is also designed for contact wear with ball wear insert 94. Col. 11, ll. 10-11.

With this understanding of Finn, it is respectfully submitted that the device disclosed in Finn is fundamentally different from the invention set forth in claim 1.

The Examiner identified the sleeve 100 as the “bushing” recited in claim 1. Claim 1 requires that the bushing is “mounted to the keel guide.” It is beyond legitimate dispute that the sleeve 100 in Finn does not meet this limitation. In Finn, the sleeve 100 is free to move relative to the keel guide – it is certainly not mounted to the keel guide.

Claim 1 also requires that the bushing have “a plurality of wear inserts positioned to bear against the keel joint.” The Examiner stated that the inserts 94 disclosed in Finn bear “against the joint.” Final Office Action, p. 2. This is simply incorrect. In Finn, the wear insert 94 bears against the concave surface 104 of the sleeve 100 – the insert 94 does not bear against the keel joint.

The Examiner also stated that the “bushing is coupled to the riser in a slidable fashion.” Final Office Action, p. 2. This statement is also incorrect. The sleeve 100 in Finn does not SLIDE relative to the shaft 89, it ROTATES.

The Examiner also stated that the identified parts in Finn “slide in relation to one another, they are ‘decoupled’ for longitudinal movement, yet coupled for lateral movement.” Final Office Action, p. 3. It is unclear to the undersigned exactly what point the Examiner is trying to make by this statement. However, it is clear that the sleeve 100 is never decoupled from the shaft 86 during normal operation. The sleeve 100 is positioned around the shaft 86 and remains in that position. The sleeve is free to rotate about the shaft during normal operation but it is still coupled to the shaft 86 as it rotates.

Furthermore, it is respectfully submitted that language in claim 1 – “decoupled from said keel joint by relative vertical motion between said keel joint and said keel guide” – is an affirmative limitation that must be considered when deciding the question of patentability. In a similar sense, the Board of Appeals has approved the use of “adapted to” language in apparatus claims. The use of “adapted to” language was specifically approved by the Board of Patent

Appeals and Interferences in an appeal taken in the application that resulted in U.S. Patent No. 6,666,754. In the appeal of that case, the Board of Patent Appeals and Interferences did not sustain the Examiner's rejection under 35 U.S.C. § 112 for the use of the terminology "adapted to" in the claims at issue in that case. Decision on Appeal dated April 25, 2003. More specifically, in that case, the Examiner's rationale for the Section 112 rejection was as follows:

"The use of the terminology 'adapted to' makes the claim vague and indefinite because the scope of the claims cannot be ascertained, since it has been held the recitation that an element is 'adapted to' perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 U.S.P.Q. 138.

Decision on Appeal, p. 4. In reversing the Examiner's claim rejections under 35 U.S.C. § 112, the Board noted:

"The use of the terminology 'adapted to' in claim 21 does not render claims 21-32 vague and indefinite since the scope of the claim can be ascertained. As set forth by the Examiner, the recitation that an element is 'adapted to' perform a function is a limitation which requires only that the structure be able to perform the function. As such, the scope of the claims can be ascertained with a reasonable degree of precision and predictability.

Decision on Appeal, pp. 4-5 (emphasis added). The use of "adapted to" language is also supported by the statements of the Board of Patent Appeals and Interferences in *Ex Parte Robert-A. Ollar*, 1994 WL 1687107, Bd. Pat .App & Interf., 1994, which states:

"On the other hand, we are aware of support for a holding that 'adapted to' and 'whereby' clauses in claims further limit the claimed subject matter and should not be disregarded. For example, see *In re Venezia*, 530 F.2d 956, 958-59, 189 U.S.P.Q. 149, 151-52 (CCPA 1976). *Pac-Tec Inc. v. Amerace Corp.*, 903 F.2d 796, 801, 14 U.S.P.Q.2d 1871, 1876 (Fed. Cir. 1990) recognizes (emphasis added) that: ... by deleting the preamble and all limitations that include 'adapted to,' 'whereby,' and 'thereby' ... the claims are reduced to mere collections of parts."

Thus, it is respectfully submitted that the language of claim 1 quoted above – by relative vertical motion between said keel joint and said keel guide – is not vague and indefinite, in fact it

is readily understandable. According, such language does constitute an affirmative limitation that must be considered by the Examiner in deciding the issue of patentability.

In any event, as set forth above, the sleeve 100 is never decoupled from the shaft 86 during normal operation. It is certainly not decoupled by providing relative vertical motion between the keel joint and the keel guide as required by claim 1.

For at least these reasons, it is respectfully submitted that claim 1 is not anticipated by Finn.

Moreover, it is respectfully submitted that the invention defined by claim 1 would not have been obvious in view of Finn or any other art of record. As set forth above, claim 1 requires that the bushing be mounted to the keel guide. In Finn, the sleeve 100 is free to move within the keel guide. It is respectfully submitted that, if the sleeve 100 in Finn were mounted to the keel guide discussed therein, the device in Finn would not work. If anything, the disclosure of Finn can be understood to teach away from mounting a bushing to the keel guide as required by claim 1.

On page 3 of the Final Office Action, the Examiner also stated the insert 94 of Finn could be mounted in a reverse manner. Respectfully, it is not understood how that could be accomplished – at least not without substantial modification of the device in Finn. It is unclear if the Examiner is stating that concave shape inserts could be positioned on the sleeve 100 to engage a convex surface formed on the flanges 92, or if the Examiner is stating that convex inserts could be positioned on the sleeve 100 and engage a concave surface formed on the flanges 92. Assuming such configurations are even possible, there is certainly no suggestion to make such modifications to the device shown in Finn.

In view of the foregoing, it is respectfully submitted that claim 1, and all claims depending therefrom, are in condition for immediate allowance. Applicants respectfully submit

that they should not have to go to the time and trouble of appealing the rejection based upon Finn.

It is also specifically submitted that the rejection of independent claim 14 is also improper. First, Applicants request that the final rejection be withdrawn, as the Examiner has not identified what specific structure, *e.g.*, by reference number or the like, in Davies that he believes meets the limitations set forth in claim 14. Accordingly, Applicants have not had an opportunity to effectively address, in detail, the Examiner's rejection. Withdrawal of the finality of the rejection is respectfully requested for at least this reason.

As to the merits, it is not understood how the device in Davies could be modified to include a shoulder formed on the inner surface of the keel guide and still work for its intended purpose. Davies is directed to a ball and socket assembly 32 to reduce certain stresses encountered during offshore operations. The ball and socket assembly 32 allows relative freedom of movement in all planes around a line. Col. 2, ll. 49-51. The ball and socket assembly 32 is held in the installed position by a latch 34. Col. 2, ll. 51-52. The ball and socket assembly 32 in Davies does not allow for "sliding movement of the keel joint within said bushing," as required by claim 14. The ball and socket assembly 32 in Davies allows rotational movement of the keel joint, but not sliding movement.

Additionally, there is no suggestion in the art of record that the structure in Davies be modified in such a manner so as to permit sliding movement of the keel joint within the bushing. If anything, Davies teaches away from allowing such a sliding connection.

A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 143 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and

common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35. It is respectfully submitted that any attempt to assert that the invention defined by independent claim 1 is obvious in view of the prior art of record constitutes an impermissible use of hindsight using Applicants' disclosure as a roadmap. "Our case law makes clear that the best defense against the subtle but powerful attraction of hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." *Teleflex v. KSR Intern. Co.*, 119 Fed. Appx. 282 (Fed. Cir. 2005) (unpublished) (citations omitted).

It view of the foregoing, it is respectfully submitted that all pending claims are in condition for immediate allowance. The Examiner is invited to contact the undersigned attorney at (713) 934-4055 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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